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**Locals' Bidimensional Acculturation Model (LBAM): Validation and Associations with
Psychological and Sociocultural Adjustment Outcomes**

Abstract

Across two studies we tested whether members of host communities (i.e., locals) can *themselves* simultaneously maintain their national culture maintenance and adapt towards cultural diversity (i.e., multiculturalism) in their own home country, supporting a bidimensional model of acculturation, or whether these strategies are incompatible, supporting a unidimensional model of acculturation. We modified the Vancouver Index of Acculturation (Multi-VIA) to assess locals' national culture maintenance and multicultural adaptation within their own home country. Study 1 supported the bidimensionality of the Multi-VIA in an American sample ($N = 218$). Moreover, we found an oblique association between locals' national culture maintenance and multicultural adaptation. In Study 2, we tested the Multi-VIA's psychometric properties across three continent groups (North America, Europe, and Asia; $N = 619$). Multiple-group confirmatory factor analysis demonstrated good model fit for the entire sample. Nevertheless, the association between national culture maintenance and multicultural adaptation was orthogonal for Asians and oblique for Americans and Europeans. Additionally, national culture maintenance predicted higher levels of locals' life satisfaction, whereas multicultural adaptation was associated with less acculturative stress and greater intercultural sensitivity.

Locals' Bidimensional Acculturation Model (LBAM): Validation and Associations with
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“Defendons Nos Couleurs” [Defend Our Colours]

(Front National, 2010)

This quotation illustrates the far-right campaigns in many European nations to defend their cultures against multiculturalism. These campaigns capitalize on the fear that growing cultural and/or ethnic pluralism in terms of migrants of first and later generations as well as indigenous groups (i.e., multiculturalism) inescapably leads to national cultural loss (Traynor, 2014). Such fears have taken root among some locals – that is, members of the mainstream society, who share an ancestral language, history, and culture, and thus, are often referred to as majority or dominant group within research (Berry & Sam, 1997; Cattle, Alibhai-Brown, Mitchell, & Allen, 2006; Riek, Mania, & Gaertner, 2006). Indeed, locals may believe that government actions that seek to improve the status of non-dominant groups must come at their expense (Ginges & Cairns, 2000; Norton & Sommers, 2011). However, locals have a stronger tendency to associate multiculturalism with cultural/symbolic threat than with economic/realistic threat (Yogeeswaran & Dasgupta, 2014). To date, however, no empirical investigation has explored whether multicultural adaptation implies the inevitable loss of locals' national culture or whether simultaneous endorsement of adaptation and national culture maintenance is possible. Instead, research has long explored locals' acculturation expectations (i.e., what migrants should do; see Horenczyk, Jasinskaja-Lahti, Sam, & Vedder, 2013, for a review), multicultural personality traits (e.g., Van der Zee & Van Oudenhoven, 2013), intercultural competences (e.g., Bennett, 1993), intergroup ideology endorsement (e.g., support of pro multicultural policies, Berry & Kalin, 1995; Guimond et al., 2013), or more comprehensive approaches (e.g., Integrative Model of Attitudes Toward Immigrants, Ward & Masgoret, 2006; and the Relative Extended Acculturation Model, Navas et al., 2005)

which combine concepts such as multicultural ideology and intergroup anxiety or locals' acculturation expectations with migrants' acculturation preferences to understand their attitudes towards multiculturalism within their own country. Therefore, we first outline Berry's (1997) bidimensional model of acculturation, and discuss how it may encompass the experience of locals and relate to theoretically-linked concepts (i.e., ethnorelativism and ethnocentrism; Study 1). Next, we outline potential associations with psychological and sociocultural outcomes as well as with an alternative theoretically-linked concept (i.e., national group commitment; Study 2).

Bidimensional Model of Acculturation

Acculturation entails changes in behaviours, values, and attitudes in response to sustained first-hand contact between members of different cultural groups (Redfield, Linton, & Herskovits, 1936). Berry (1997, p. 9) proposed that acculturation addresses two underlying dimensions: the degree to which one wishes to maintain his/her heritage culture (i.e., "to what extent are cultural identity and characteristics considered to be important, and their maintenance strived for"), and the degree to which one wishes to participate and have contact with other cultural groups (e.g., mainstream society). Due to the discrepancy between attitudinal preferences and actual acculturation behaviour, a combination of both was proposed for assessment in terms of acculturation strategies (Berry, 1997, Celenk & Van de Vijver, 2011). Beyond Berry's (1997) concept of contact-participation with the larger society, acculturation strategies can also address the domains of identification or cultural adoption (Snauwaert, Soenens, Vanbeselaere, & Boen, 2003). Identification reflects an individual's self-classification as a member of a specific cultural group (e.g., "I really consider myself as a Turk", Snauwaert et al., 2003, p. 235) whereas cultural adoption reflects the value of incorporating values, behaviours, and customs of a new mainstream society (Bourhis, Moïse, Perreault, & Senecal, 1997; López-Rodríguez, Zagefka, Navas, & Cuadrado, 2014).

Across such domains, researchers have debated whether the two underlying constructs of acculturation are better understood in terms of a bidimensional or unidimensional model (Ryder, Alden, & Paulhus, 2000). In a bidimensional model, the two factors may vary independently from each other (i.e., orthogonal) or they may be positively correlated (i.e., oblique of small size, $r = .10-.30$, or medium size, $r = .30-.50$; cf., Berry, Phinney, Sam, & Vedder, 2006), allowing for integration – that is, the simultaneous endorsement of one's heritage and mainstream culture. A unidimensional model, by contrast, describes an inverse association between two constructs, suggesting they represent the two poles of a continuum. Accordingly, such a model would imply that mainstream culture involvement inevitably results in heritage culture loss. By testing their Vancouver Index of Acculturation (VIA) against a unidimensional acculturation scale, Ryder and colleagues (2000) demonstrated substantial support for a bidimensional model in which the two underlying constructs – heritage culture orientation and mainstream culture orientation – varied independently (i.e., orthogonality).

Although there is a consensus within the literature that acculturation brings about changes in both groups in contact (Berry, 2008; Dinh & Bond, 2008), no research has yet applied Berry's (1997) bidimensional acculturation model to explain the changes that locals experience due to cultural diversity within their communities. Instead, it is often assumed that acculturation is mainly experienced by non-dominant groups due to their lower vitality in opposition to locals. According to Ethnolinguistic Vitality Theory (Giles, Bourhis, & Taylor, 1977), low group vitality implies a lack of prestige (e.g., economic or socio-historical status within a specific region), demographic strength (e.g., birth rate or emigration patterns), and institutional support (e.g., representation in the mass media, education, and politics) within a nation state. Conversely, the mainstream community is regarded as a high vitality group,

enabling its members to maintain their language and distinctive cultural traits within multilingual settings (Bourhis, Montaruli, El-Geledi, Harvey, & Barrette, 2010).

Accordingly, researchers have tended to emphasize the acculturation of low vitality groups to the high vitality group culture (Berry et al., 2006). Yet, as migratory movements are rising to fill labor shortages and population decline, group vitalities are changing (UNSD, 2013; Vasileva, 2011). In fact, today it is increasingly likely for locals to experience sustained contact with members of different cultural backgrounds of similar or growing vitality within their communities (Bourhis et al., 2010; Van Oudenhoven & Ward, 2013). Then unlike migrants, locals' may not experience changes due to a low or decreasing group vitality, but may ask themselves – to what extent do I maintain my national culture and to what extent do I adapt towards other cultural groups within my own home country – due to the growing vitality of non-dominant groups within their own home country.

Therefore, the goal of the present study was to test whether Berry's (1997) traditional bidimensional acculturation model for migrants may also explain locals' acculturation experience within their own country. Specifically, in Study 1 we modified the Vancouver Index of Acculturation (VIA; Ryder et al., 2000) to assess Americans' endorsement of their national culture maintenance and multicultural adaptation – that is, Bourhis and colleagues (1997; see also Bourhis & Montreuil, 2010) conceptualized acculturation in terms of cultural maintenance-adoption to overcome Berry's (1997) psychologically inconsistent concept of cultural maintenance and contact-participation which pairs a cultural dimension with a contact dimension. However, Berry (1997, p. 9) originally conceptualized cultural maintenance as valuing “characteristics to be considered important” as well as “cultural identity”. To achieve a psychologically consistent model for locals, we therefore conceptualized their acculturation in the form of maintenance-adaptation which pairs a combined identity, preservation (e.g., values and costumes), and contact dimension with a

combined identity, adoption (e.g., values and costumes), and contact dimension. In particular, we specified cultural maintenance as locals' overarching orientation in form of their identification with other locals, attitudes and behaviours towards the preservation of their values and costumes as well as contact with other locals; consistent with this dimension, multicultural adaptation indicates locals' overall orientation in form of identification with other cultural groups within their home country, attitudes and behaviours towards the adoption of values and costumes of these groups and contact with members of these groups. In Study 2, we collected data across five countries (UK, Germany, USA, China, and India) to confirm the validity of the Multi-VIA and to identify potential psychological and sociocultural benefits of locals' multicultural adaptation within their own home country. In the following section, we describe our acculturation model for locals and outline its contribution to related constructs and its conceptual distinctiveness.

Locals' Bidimensional Acculturation Model

Although several approaches have been proposed to explain locals' multicultural adaptation, they disregard either the potential for change experienced by locals and/or the bidimensional nature of acculturation. For example, acculturation researchers applied Berry's (1997) bidimensional model to describe the degree to which locals wish for non-dominant members – and not locals themselves – to maintain their heritage culture and/or adopt the mainstream community (i.e., acculturation expectations; Horenczyk et al., 2013). Indeed, even endorsement of an integrationism-transformation orientation – which refers to the willingness to modify one's own cultural habits and mainstream institutions (e.g., employment practices) in response to cultural diversity – attempts to facilitate the integration of migrants rather than locals' multicultural adaptation (Montreuil, Bourhis, & Vanbeselaere, 2004). Similarly, research on intergroup ideologies reflects locals' attitudes that may constrain or promote non-dominant members' integration rather than locals' multicultural

adaptation and/or national culture maintenance (Berry & Kalin, 1995; Guimond et al., 2013). Indeed, such ideologies express locals' extent of agreement with multicultural policies ranging from assimilationism – legislative efforts to culturally homogenize the population (i.e., melting-pot strategy, Berry, 2008) – to the recognition and support of cultural differences as a feature of the national culture on a one-dimensional continuum (i.e., multicultural ideology; Berry & Kalin, 1995).

Conversely, intercultural competence research regards locals from the same standpoint as migrants, expecting behavioural, attitudinal and value changes due to cultural diversity (e.g., Bennett, 1993; Olson & Kroeger, 2001). Nevertheless, acculturation strategies are believed to determine such adjustment outcomes (Berry et al., 2006). Moreover, research on intercultural competence and on adaptive personality traits disregards the bilateral nature of acculturation, solely addressing abilities/character traits that help to mitigate intercultural interaction difficulties without referring to locals' national culture maintenance (e.g., Chen & Starosta, 2000; Van der Zee & Van Oudenhoven, 2013). Furthermore, globalization research claims to assess locals' changes due to cultural diversity by applying Berry's (1997) bidimensional acculturation model (e.g., Gillespie, McBride, & Riddle, 2010). Yet, this research does not make a conceptual distinction between adapting towards multiculturalism within one's own country and adaptation towards a global culture, often predefined as Westernization (e.g., Chen, Benet-Martínez, & Bond, 2008; Gillespie et al., 2010; Mahammadbakhs, Fathiazar, Hobbi, & Ghodrattpour, 2012). Indeed, Ferguson and Bornstein (2015) defined locals' globalization-based acculturation as originating from indirect/intermittent contact between geographically separate cultural groups rather than sustained intercultural contact with diverse cultural groups who reside in one's own home country.

Therefore we proposed Locals' Bidimensional Acculturation Model (LBAM) to address locals' acculturation strategies due to multiculturalism within one's own home country. Contrary to Berry's (1997) conceptualization of acculturation strategies in terms of cultural maintenance (i.e., cultural identity and other characteristics) and contact-participation, our model is based on the extent of locals' national culture maintenance and/or multicultural adaptation (i.e., overarching orientation across cultural identity, preservation/adoption, and contact). We predicted that these two dimensions, whether obliquely or orthogonally related, would emerge from our factor analysis of the Multi-VIA (Hypothesis 1). Thus, we did not ascribe to a unidimensional model – a one-factor solution or a negative, oblique association between national culture maintenance and multicultural adaptation. Considering the empirical novelty of our research, we chose an exploratory approach to test how many factors would emerge as well as how they are associated (oblique or orthogonal).

Convergent and Discriminant Validity: Ethnocentrism vs. Ethnorelativism

According to Trochim (2006), one procedure to assess a measurement's construct validity is by expecting significant linkages with theoretically related yet distinct concepts (i.e., convergent validity) and non-significant/weaker linkages with theoretically unrelated concepts (i.e., discriminant validity). To buttress the construct validity of Locals' Bidimensional Acculturation Model, we therefore examined potential linkages with the theoretically related yet distinct Developmental Model of Intercultural Sensitivity (DMIS; Bennett, 1993). The DMIS describes six consecutive steps resulting in a multicultural identity for locals and non-locals – that is, a cultural hybrid identity through integrating one's own and other cultures which can result in a new 'third' culture.

With each step, one's experience of cultural difference becomes more sophisticated, moving from ethnocentrism to ethnorelativism (Hammer, 2011). Ethnocentrism is expressed

through disinterest in cultural differences, stereotypical thinking about other cultures, and feelings of threat from other cultures. Ethnorelativism refers to high cultural empathy and the adaptation of other worldviews, resulting in biculturality or multiculturalism. Therefore, we expected that participants who were higher in multicultural adaptation would endorse an ethnorelativistic worldview (Hypothesis 2) whilst rejecting ethnocentrism (i.e., convergent validity; Hypothesis 3).

In Study 1, data was collected in the USA because of its high cultural diversity (Ennis, Ríos-Vargas, & Albert, 2010; Rastogi, Johnson, & Drewery, 2011). Cultural and ethnic plurality is regarded as a core tenet of the American culture (Bourhis et al., 2010; Levine, 2004). For example, previous studies revealed Americans' general preference of an integrationist acculturation expectation towards migrants which indicates the acceptance of cultural diversity as an establishing feature of the mainstream society (e.g., Bourhis et al., 2010). On this basis, one could argue that participants' national culture maintenance may be positively associated with ethnorelativism and negatively with ethnocentrism. Conversely, the country's political ideology towards multiculturalism indicates a strong preference for migrants to assimilate rather than to integrate, as heritage culture maintenance is often perceived as a threat to the country's social harmony (Deaux, 2006; Hero & Preuhs, 2006). Moreover, the American national culture stresses individualism (Hofstede, 2001), which has been found to be positively correlated with ethnocentrism (Angraini, Toharudin, Folmer, & Oud, 2014). Due to this mixed perception of multiculturalism in the USA, we predicted that the associations between national culture maintenance with ethnorelativism (Hypothesis 4) and ethnocentrism (Hypothesis 5) would be non-significant or weaker than the association of multicultural adaptation with ethnorelativism and ethnocentrism, supporting discriminant validity of the Multi-VIA (Field, 2009; Trochim & Donnelly, 2007).

Study 1: Method

Participants

To be categorized as local, individuals had to meet the following requirements: they were born in the USA, as were both of their parents; they had spent the majority of their lives in the USA (at least 60%). The total sample consisted of 218 respondents (95 males and 123 females) between the ages of 18 and 69 ($M = 33.78$, $SD = 12.72$). Fifty-seven percent of participants were employed (student, 23%; unemployed, 20%). The majority of the sample participants classified as European-American (77%; African-American, 11%; Hispanic-American, 2%, other, 10%), and of higher educational background (e.g., Bachelor or Master Degree, 60%; high-school degree, 37%; no degree, 3%).

Procedure

Research Ethics Approval for the present study was granted from the Psychology Research Ethics Brunel Committee of Brunel University. An online version of the survey was developed using the original English measures, and distributed through Amazon's Mechanical Turk (MTurk). Data collection was restricted to Americans, who received \$.50 USD for completing the survey. Participants' IP addresses were examined for duplicates. None were found.

Materials

Multi-Vancouver Index of Acculturation (Multi-VIA). The Vancouver Index of Acculturation (VIA; Ryder et al., 2000) consists of mainstream and heritage culture subscales with each containing 10 items rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). For the present study, we retained the national culture maintenance items of the VIA (specifying "American" as the mainstream culture). To develop the multicultural adaptation subscale, we modified the same items so that they referred to "diverse cultures" (see Table 2 for the items). The instructions for completing the scale stated that "the following questions will measure to what extent you feel part of and engage in your national culture (American), and to what extent you feel part of and engage in

a culturally 'diverse' or multicultural community in your own home country (i.e., different cultures than your American cultural background)." Reliability and validity for this modified measure is reported in the Results section.

Intercultural Sensitivity Index (ISI). The ISI by Olson and Kroeger (2001) was developed from Bennett's (1993) Developmental Model of Intercultural Sensitivity. Ethnocentrism and ethnorelativism were measured with eight items each. Statements were measured with a 5-point Likert scale anchored with "*never describes me*" (1) to "*describes me extremely well*" (5). Principal axis factor analysis (PAF) revealed the emergence of two factors that corresponded with ethnocentrism ($\alpha = .75$) and ethnorelativism ($\alpha = .84$). Together they explained 41% of the variance, and all factor loadings were greater than .35

Results

Descriptive Statistics

All continuous variables are presented in Table 1. An ANOVA revealed no significant differences in participants' national culture maintenance across self-identified racial categories, $F(2, 215) = .23, p > .05$. Even when comparing European-American participants ($M = 4.09, SD = .61$) with the other categories combined ($M = 4.10, SD = .63$), there were no significant differences in the endorsement of national culture maintenance, $t(216) = -.12, p = .91$. No significant differences were found, either, when comparing multicultural adaptation across all three self-identified racial categories, $F(2, 215) = 2.02, p > .05$, and when comparing European-American participants ($M = 3.68, SD = .60$) with the other two categories combined ($M = 3.86, SD = .60$), $t(216) = -1.84, p = .07$. The correlation matrix for all continuous variables revealed a significant, positive association between participants' national culture maintenance and multicultural adaptation (see Table 1).

Model Dimensionality

Locals' Bidimensional Acculturation Model conceptualizes locals' acculturation in terms of two dimensions: their national culture maintenance and their multicultural adaptation (Hypothesis 1) which are either independent from each other (i.e., orthogonal) or positively related (i.e., oblique). To test the bidimensional acculturation model with two independent dimensions, we conducted principal axis factoring (PAF) with an orthogonal rotation (varimax). PAF is appropriate when a factor structure has been predicted on the basis of theory (Tabachnick & Fidell, 2007). Three factors emerged based on the eigenvalues (Factor 1 = 36%; Factor 2 = 14%, Factor 3 = 5%), explaining 54.67% of the total variance. Due to the low percentage of explained variance for Factor 3, we inspected the scree plot which identified a two-factor structure. A second test which was constrained to extract two factors explained 48.65% of the total variance (Factor 1 = 29%; Factor 2 = 20%). Because there was a medium, positive correlation between national culture maintenance and multicultural adaptation (see Table 1), we conducted a third PAF with an oblique rotation (see Table 2). Again, two dimensions were extracted which explained 48.65% of the total variance. Only items with factor loadings above .45 on their respective subscale were retained. As can be seen in Table 2, all items met this criterion, with 10 items loading on the factor representing national culture maintenance and 10 items loading on the factor reflecting multicultural adaptation. Cronbach's alphas were respectable for national culture maintenance ($\alpha = .91$) and multicultural adaptation ($\alpha = .86$). The factor correlation matrix indicated a positive correlation between the two subscales ($r = .44$; see Tabachnick & Fidell, 2007).

To control for locals' self-identified racial categories in our sample, we conducted another PAF with only the European-American group ($N = 168$). Similar to the previous results, two dimensions were extracted with 54.22% of the total variance explained. All factor loadings were above .45, with 10 items loading on national culture maintenance and 10 items loading on multicultural adaptation. Cronbach's alphas were high for both factors ($\alpha = .91$;

.87, respectively). Again, the two subscales were positively correlated (.38; see Tabachnick & Fidell, 2007). In sum, this positive rather than a negative correlation, the scree plot outcome, respectable factor loadings, and reliability coefficients therefore supported Hypothesis 1 (Field, 2009; Stevens, 2002): two distinct dimensions emerged, reflecting national culture maintenance and multicultural adaptation.

Convergent and Discriminant Validity

Multicultural adaptation was positively correlated with ethnorelativism ($r^1 = .68, p < .001$) and negatively correlated with ethnocentrism ($r = -.30, p < .001$), supporting Hypotheses 2 and 3 (i.e., convergent validity). While national culture maintenance was not associated with ethnocentrism (i.e., discriminant validity, Hypothesis 5), it was positively associated with ethnorelativism ($r^2 = .20, p < .01$). To test Hypothesis 4 – that multicultural adaptation is more strongly associated with ethnorelativism than is national culture maintenance – we conducted Fisher's r -to- z transformation. In support of our prediction, there was a significant difference between r^1 and r^2 ($z = 6.49, p < .05$) indicating discriminant validity (Trochim & Donnelly, 2007).

Discussion

The findings of Study 1 supported the validity and reliability of the Multi-VIA. Two clear factors emerged, one representing national culture maintenance, and the other representing multicultural adaptation. In contrast to Berry's (1997) orthogonal dimensions, a positive oblique relation was found between the two dimensions in our sample of local Americans. On the one hand, this finding is in line with research on migrants' bidimensional acculturation model which has pointed out that a models' bidimensionality is still given when both dimensions are significantly associated with each other, yet only of medium ($r = .30-.50$) rather than high size ($r = .50-1.00$; Berry et al., 2006; Field, 2009). On the other hand, this positive association may reflect that the expansion of one's mainstream culture through

incorporating aspects of other cultures is an inherent part of the American national culture (e.g., Levine, 2004), expressed in a more positive rather than orthogonal correlation between national culture maintenance and multicultural adaptation. Notably, both our total and European-American samples showed a sufficient factor structure fit (i.e., 48.65% and 54.22%, respectively, of total variance explained; Vieira, 2011). The slightly greater fit of the European-American sample than the total sample may be due to varying levels of locals' group vitality in the USA. In particular, the Multi-VIA was created to assess national culture maintenance and multicultural adaptation of locals who are members of high vitality/dominant groups (i.e., high prestige, demographic strength, and institutional support; Giles et al., 1977). Yet, a society can consist of more than one high vitality/dominant group, with the USA encompassing not only European-American locals but, for example, also African-American locals (Bourhis et al., 2010). Our European-American sample, however, may have perceived their group to be of higher vitality than have our other American locals, which made the Multi-VIA scale not exclusively, but more psychologically fitting for them.

Moreover, our results showed that multicultural adaptation was negatively correlated with ethnocentrism and positively associated with ethnorelativism, supporting the convergent validity of the Multi-VIA. Discriminant validity was supported due to a non-significant association between national culture maintenance and ethnocentrism. Although national culture maintenance was positively associated with ethnorelativism, the association of multicultural adaptation with ethnorelativism was significantly stronger. All in all, because the factor analysis revealed a bidimensional rather than unidimensional model as well as convergent and discriminant validity could be established for the dimensions, these results supported a bidimensional rather than a unidimensional model to capture locals' acculturation within culturally diverse societies. To further investigate the Multi-VIA's validity, Study 2 examined its generalizability beyond a Western context, its association with another

theoretically linked, yet distinct concept (i.e., national group commitment) as well as potential psychological and sociocultural adjustment outcomes.

Study 2

Dimensionality of the Multi-VIA beyond a Western Context

Although the findings of Study 1 supported a bidimensional acculturation model for locals, its generalizability beyond Western contexts remained to be explored - that is, whether both dimensions of the Multi-VIA would emerge across varying Western samples (North America and Europe, e.g., more individualistic; Hofstede, 2001) and an Asian sample (e.g., more collectivistic). Research on migrants' acculturation has shown consistent support for a bidimensional model across different mainstream and heritage cultures (Huynh, Howell, & Benet-Martínez, 2009). We therefore expected that the bidimensional structure of Locals' Bidimensional Acculturation Model would not vary across different contexts (UK, Germany, USA, China, and India; Hypothesis 1).

It was unclear, however, if the association between the two constructs (positive oblique vs. orthogonal) would vary across cultures. It was beyond the scope of this paper to explore the reasons why there might be cultural variation in this factor covariance; instead, the goal of Study 2 was the broader validation of a bidimensional rather than unidimensional acculturation model for locals. That is, we examined (a) whether one or two dimensions emerged across cultures, and (b) whether the association between the dimensions was orthogonal, positive or negative, of medium ($r = .30-.50$) or high size ($r = .50-1.00$; Berry et al., 2006). Similar to Study 1, we expected two medium positively-associated dimensions to emerge in the North American sample. We also expected two dimensions to emerge in the Asian and European samples, but the association between these dimensions was examined on an exploratory basis.

Convergent and Discriminant Validity: National Group Commitment

To bolster validity, we further explored linkages between Locals' Bidimensional Acculturation Model and the theoretically-related construct of group commitment. According to Social Identity Theory, feelings of belonging and commitment to a social group derive from one's self-categorization as one of its members (Tajfel & Turner, 1986). Traditional acculturation research on migrants and immigrant youth stresses that their identification with the heritage culture is associated with feelings of belonging and commitment towards the heritage culture (Ferenczi & Marshall, 2013; Phinney, Berry, Vedder, & Liebkind, 2006). In contrast, assimilated multiculturalists have been found to lack a strong feeling of belonging towards any given cultural context (Bennett, 1993; Moore & Barker, 2012). Applied to locals, we therefore expected that national culture maintenance would be strongly and positively linked to locals' feelings of commitment to the national group (i.e., convergent validity), whereas multicultural adaptation would show no such correlation (i.e., discriminant validity of the Multi-VIA, Hypothesis 2).

Psychological and Sociocultural Adjustment Outcomes

Previous research has found that acculturation strategies predict migrants' adjustment to a new culture (Berry et al., 2006). Psychological adjustment refers to migrants' coping and mental health, whereas sociocultural adjustment refers to their ability to fit in to the new culture (Searle & Ward, 1990; Ward & Kennedy, 1999). Study 2 examined parallel processes in *locals* – whether their national culture maintenance and multicultural adaptation might be associated with indices of psychological and sociocultural adjustment. We had several bases for formulating Hypothesis 3 – that both national culture maintenance and multicultural adaptation would be positively associated with life satisfaction, a common index of subjective well-being and psychological adjustment (Chen et al., 2008; Kashdan, Rose, & Fincham, 2010). First, social identity theory suggests that any sort of group association

allows individuals to maintain a positive self-image, which in turn enhances subjective well-being (Tajfel & Turner, 1986). Second, people who engage in self-expanding activities, such as exploring cultural traditions and practices, also tend to report greater life satisfaction (Kashdan et al., 2010).

Another index of (poor) psychological adjustment is acculturative stress, which refers to the negative physical and psychological outcomes – e.g., anxiety and depression – that may result from experiencing cultural differences (Mejía & McCarthy, 2010). Van Oudenhoven and Ward (2013) speculated that growing cultural diversity may lead some locals to experience acculturative stress within their own community. For example, limited resources and the presence of a salient out-group may result in locals' perception of high intergroup competition and threat, leading to stress and anxiety (e.g., Intergroup Threat Theory; Stephan, Ybarra, & Morrison, 2009; see also Esses, Jackson, Dovidio, & Hodson, 2005). Conversely, cultural awareness and sensitivity may reduce intergroup difficulties and stress (Keengwe, 2010; Pasca & Wagner, 2011). Specifically, multicultural adaptation indicates locals' greater contact and familiarity with other cultural groups, which leads to more positive outgroup attitudes, enhanced mutual understanding, and less intercultural stress and conflict (Contact Hypothesis; Allport, 1954; Berry & Kalin, 1979; Pettigrew & Tropp, 2011). Therefore, we predicted that multicultural adaptation would be negatively associated with acculturative stress (Hypothesis 4).

Last, migrants who adapt to their new cultural surroundings tend to report greater sociocultural adjustment (e.g., Berry & Sabatier, 2010). For example, they demonstrate better work performance and experience less difficulty in daily life situations (Phinney & Ong, 2007), and better intercultural communication competence (LaFromboise, Coleman, & Gerton, 1993). In particular, Ward and Kennedy (1999, p. 660) defined sociocultural adjustment as “the ability to ‘fit in’, to acquire culturally appropriate skills and to negotiate

interactive aspects of the host environment". Intercultural sensitivity, as defined by Chen and Starosta (1997, p. 6), represents a core pre-requisite to enable "appropriate and effective behavior in intercultural communication". Consequently, locals high in intercultural sensitivity are more likely to 'fit in' a multicultural environment in their home country (e.g., less behavioural and communication difficulties), thus representing a good index of locals' sociocultural adjustment. Analogously, we predicted that locals high in multicultural adaptation would show greater intercultural sensitivity (Hypothesis 5).

Method

Participants

Individuals had to meet the following requirements to be included in this study: they currently lived in the UK, Germany, USA, China, or India; they were born there as were both of their parents; and they had spent the majority of their lives in that country (at least 60%). After removing eight duplicates, the total sample consisted of 619 respondents (41% male, 59% female), including 103 British, 111 Germans, 200 Americans, 101 Chinese, and 104 Indians between the age of 18 to 71 (see Table 3). The participants were well-educated (70% with a qualification higher than A-levels) and from a relatively affluent socio-economic background (40% student, 50.4% employed; see also Table 4).

Procedure

Ethical approval for the present study was obtained by the Psychology Research Ethics Brunel Committee. For all sample groups, an online version of the survey was developed using the original scales in English. Hyperlinks were created with an online survey-development tool and distributed through Facebook, online forums, and email invitations. For the US sample, participants were also recruited via Amazon's Mechanical Turk (MTurk) and received \$.50 USD for completing the survey. Responses were completely anonymous and voluntary.

Materials

The Multi-VIA, used in Study 1, was described earlier. Cronbach's alphas for the total sample and each national group indicated high reliability (see Table 3).

Multigroup Ethnic Identity Measure - Revised (MEIM-R). As we were explicitly interested in locals' commitment towards their national group, we only included the MEIM-R's (Phinney & Ong, 2007) ethnic identity commitment subscale. Further, we exchanged the term "ethnic" with "national". The scale consisted of 3 items that were rated on a 5-point Likert scale ranging from "*strongly disagree*" (1) to "*strongly agree*" (5). PAF found that all items loaded on one underlying factor that accounted for 70% of the total variance. The factor loadings were all greater than .60. This scale revealed high reliability for the total sample as well as for each national group (see Table 3).

Intercultural Sensitivity Scale (ISS). This 24-item scale, developed by Chen and Starosta (2000), includes five dimensions: interaction engagement, respect for cultural differences, interaction confidence, interaction enjoyment, and interaction attentiveness. All statements were measured with a 5-point Likert scale anchored with "*strongly disagree*" (1) and "*strongly agree*" (5). Because PAF analysis revealed a one-factor solution, explaining 33% of the total variance, we collapsed the subscales into one construct tapping intercultural sensitivity (IS; see Table 3 for Cronbach's alphas for the total sample and each national group).

Satisfaction with Life Scale (SWLS). The SWLS life (Diener, Emmons, Larsen, & Griffin, 1985) is a 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life (e.g., "In most ways my life is close to my ideal") using a 1 (*strongly disagree*) to 7 (*strongly agree*) Likert scale. Cronbach's alphas are reported in Table 3.

Riverside Acculturation Stress Inventory (RASI). Benet-Martínez and Haritatos' (2005) 15-item scale assesses migrants' difficulties across different life domains: language skills, discrimination or prejudice, intercultural relations, cultural isolation, and work challenges (e.g., "I feel that there are not enough people of my own cultural group in my living environment" and "I feel that my particular cultural practices have caused conflict in my relationships"). The subscale addressing difficulties with language skills was not included in the present study. PAF indicated that a one-factor solution explained 46% of the total variance. Thus, all subscales were collapsed into one latent variable assessing acculturative stress. The scale showed high reliability for the total sample and each subsample (see Table 3).

Results

Descriptive Statistics

Means and standard deviations are presented in Table 3. To assess whether locals' bidimensional acculturation model can be generalized beyond Western contexts, we merged the five countries into three continent groups: North America (USA, $N = 200$), Europe (UK and Germany, $N = 214$), and Asia (China and India, $N = 205$). We based this country combination on previous research which found that India and China tend to be low in individualism, whereas the UK and Germany tend to be high in individualism (Hofstede, 2001). This procedure also maximises our sample sizes, providing a more comprehensive and reliable multiple-group comparison. Indeed, Kline (2005) proposed $N > 200$ per group to provide sufficient statistical power for SEM analyses. Two one-way analysis of variance (ANOVA) showed that the endorsement of national culture maintenance and multicultural adaptation significantly differed across the five country groups (see Table 3). Bonferroni post-hoc tests showed that German and Chinese participants endorsed significantly less national culture maintenance than Indian respondents ($p < .05$, respectively), with Chinese

participants also endorsing less national culture maintenance than American participants ($p < .05$). Moreover, Bonferroni post-hoc tests indicated that Chinese participants endorsed less multicultural adaptation than German, British and American respondents ($p < .05$, respectively) whereas Germans scored higher than Indians ($p < .01$). Table 5 reports the correlations between all variables across continent groups.

To test model fit across the three continent groups, we conducted a multi-group confirmatory factor analyses with AMOS 18. Specifically, we tested for several levels of invariance: configural invariance, in which the data reflect the same number of factors across groups and the same items are associated with the same factors; metric invariance, which holds that factor loadings are equivalent across groups; and structural invariance, in which the structural pathways and/or covariances between latent variables are the same across groups (Byrne, 2010; Vandenberg & Lance, 2000). Prior to analysis, items of the national culture maintenance and multicultural adaptation scales were parcelled to increase the stability of the parameter estimates (MacCallum, Widaman, Zhang, & Hong, 1999). We followed a factorial approach to create parcels (Russell, Kahn, Spoth, & Altmaeir, 1998): we first conducted a PAF of the Multi-VIA with promax rotation for the entire sample ($N = 619$). Items with the highest and lowest factor loadings were combined to create five parcels each for the latent variables of national culture maintenance (parcel 1, items 1 and 3; parcel 2, items 9 and 10; parcel 3, items 2 and 6; parcel 4, items 7 and 8; and parcel 5, items 4 and 5) and multicultural adaptation (parcel 6, items 7 and 3; parcel 7, items 9 and 2; parcel 8, items 6 and 10; parcel 9, items 5 and 4; and parcel 10, items 1 and 8). We first tested the measurement model and competing structural models for the total sample, followed by multiple-group comparison analysis.

Measurement Weights and Structural Paths for the Total Sample

Confirmatory factor analysis was used to test the measurement model – that locals' acculturation is better conceptualized as bidimensional (i.e., no correlation or a positive correlation between national culture maintenance and multicultural adaptation) than unidimensional (i.e., one dimension or a negative correlation between national culture maintenance and multicultural adaptation; Hypothesis 1). Because chi-square is sensitive to sample size, we used alternative indices to assess model fit: the comparative fit index (CFI; should be equal to or greater than .90; Hair, Black, Babin, & Anderson, 2010); the root-mean-square error approximation (RMSEA; should be .08 or less; Browne & Cudeck, 1989); and the standardized root-mean-square residual (SRMR; should be .10 or less; Kline, 2005).

We first tested a unidimensional acculturation model for locals by loading all parcels for national culture maintenance and multicultural adaptation onto one latent variable. Results of the measurement model revealed a poor fit with the data [$\chi^2(51) = 841.41, p < .0001$, CFI = .84, RMSEA = .16 (CI: .15, .17), SRMR = .13]. Next, we tested a bidimensional acculturation model for locals with the parcels for national culture maintenance and multicultural adaptation loaded onto each respective latent variable which were connected through a structural covariance (see Figure 1). This revised measurement model significantly differed from the one-factor model [$\chi^2\Delta(77) = 111.9, p < .01$], and demonstrated better fit with the observed data [$\chi^2(128) = 729.51, p < .0001$, CFI = .91, RMSEA = .09 (CI: .08, .09), SRMR = .09]. Standardized parameter estimates, factor loadings, and significance levels are reported in Table 6; they supported good measurement validity, with all factor loadings greater than the minimum criterion of .60 across continent groups (Garson, 2010).

Importantly, the covariance between national culture maintenance and multicultural adaptation was significant, positive and of medium size (see Figure 1), therefore supporting a bidimensional model of locals' acculturation rather than a unidimensional model across the entire sample. The fully saturated model (i.e., including all paths between latent variables)

revealed non-significant associations of national culture maintenance with intercultural sensitivity and acculturative stress, and of multicultural adaptation with life satisfaction. A modified model that constrained the non-significant paths to zero did not significantly differ from the initial model [$\chi^2\Delta(3) = 2.52, p > .05$], and provided an adequate fit to the data [$\chi^2(131) = 732.03, p < .0001, CFI = .91, RMSEA = .09$ (CI: .08, .09), SRMR = .09].

Standardized structural path coefficients and significance values can be seen in Figure 1.

Multiple-Group Comparison Analysis: Measurement Model

To test whether the final model fit the data similarly for participants across continent groups (Hypothesis 2), we conducted a multiple-group comparison analysis with AMOS 18. We used two indices of metric/structural invariance: the chi-square difference test ($\chi^2\Delta$), where non-significant differences indicate invariance (i.e., $p > .05$); and differences in CFI (ΔCFI), which is less sensitive to sample size than $\chi^2\Delta$. Meade, Johnson, and Braddy (2008) recommended that ΔCFI values equal to or less than -.002 indicate invariance. First, a comparison of the North American and European samples revealed no significant differences in the groups' factor loadings [$\chi^2\Delta(13) = 10.82, p > .05, \Delta CFI = .001$], therefore supporting metric invariance (path coefficients for each group are reported in parentheses in Figure 1). Furthermore, both groups displayed positive, medium sized correlations between national culture maintenance and multicultural adaptation. Given equivalent factor loadings, constraining the pathway between these two latent variables to equality resulted in a significant difference in model fit compared to the model in which this covariance was unconstrained [$\chi^2\Delta(1) = 5.17, p < .05$], suggesting that the positive correlation for the two subscales was stronger for the American sample than for the European sample. However, ΔCFI was only -.001; because ΔCFI is less sensitive to sample size than $\chi^2\Delta$, we prioritized the ΔCFI results and concluded that the model fit was invariant.

North America and Europe significantly differed in their factor loadings from Asia [$\chi^2_{\Delta}(13) = 29.67, p < .01, \Delta CFI = -.003$ and $\chi^2_{\Delta}(13) = 27.11, p < .01, \Delta CFI = -.004$, respectively]. After constraining all eight factor loadings individually to equality, three parcels were detected that showed non-invariance when comparing Americans and Asians (parcels 4, 5, and 7; see Table 6) and two parcels were detected when comparing Europe with Asia (parcels 1 and 7; see Table 6). Moreover, the factor loading for parcel 1 on intercultural sensitivity was stronger for the Americans ($\beta = .90, p < .0001$; see Figure 1) than for the Asian sample ($\beta = .82, p < .0001$; see Figure 1). Considering that configural invariance was supported across continent groups – the same items loaded onto the same factors across groups – this metric non-invariance may be owing to our parcelling method (Meade & Kroustalis, 2006). Moreover, because these invariant parcels did not constitute a large portion of the overall model, partial metric invariance may be assumed and meaningful comparisons can still be made (Byrne, Shavelson, & Muthen, 1989).

In contrast to Europeans and Americans, Asians showed no correlation between the latent variables of national culture maintenance and multicultural adaptation (see also Table 5). Given equivalent factor loadings, constraining the pathway between the two latent variables to equality resulted in a significant difference in model fit when Asians were compared to Europeans [$\chi^2_{\Delta}(1) = 7.87, p < .01, \Delta CFI = -.002$] and to North Americans [$\chi^2_{\Delta}(1) = 18.63, p < .001, \Delta CFI = -.004$]. Thus, Asians experienced national culture maintenance and multicultural adaptation as orthogonal.

To assess whether our bidimensional model was valid for European and European-American locals as well as other self-identified racial categories, we tested for measurement invariance between European/European-American and any other category across countries. The analysis revealed a significant difference between groups [$\chi^2_{\Delta}(13) = 35.89, p < .001, \Delta CFI = -.004$], with four parcels displaying non-invariance (parcels 2, 4, 5, and 7; see Table

6). Still, all factor loadings indicated the same loading pattern and most parcels loaded invariantly, supporting the validity of our model across self-identified racial categories (i.e., configural invariance and partial metric invariance; Vandenberg & Lance, 2000).

Multiple-Group Comparison Analysis: Adjustment Outcomes

In the total sample, national culture maintenance was positively correlated with satisfaction with life (supporting Hypothesis 3), and multicultural adaptation was negatively associated with acculturative stress and positively associated with intercultural sensitivity (supporting Hypotheses 4 and 5, respectively). We next tested for structural invariance. Assuming equivalent factor loadings across groups, a comparison of the North American and European samples revealed no significant differences in the groups' structural path coefficients between national culture maintenance and satisfaction with life, or between multicultural adaptation and intercultural sensitivity and acculturative stress [$\chi^2(3) = 3.45, p > .05, \Delta CFI = -.001$]. These results verified the invariance of the structural pathways in both groups (see Figure 1). However, assuming equivalent factor loadings, there was non-invariance in the structural path coefficients between the North American and Asian samples [$\chi^2(3) = 29.67, p < .01, \Delta CFI = -.002$]. This suggests that at least one of the structural path coefficients was not equal across groups. To locate the source of non-invariance, we constrained several pathways to equality in a step-by-step procedure. The analysis revealed that the path from multicultural adaptation to intercultural sensitivity was not equal [$\chi^2(1) = 10.26, p < .01, \Delta CFI = -.002$]. Both groups displayed a significant correlation between multicultural adaptation and intercultural sensitivity (see Figure 1), but the correlation was stronger for the Americans than for the Asians.

Given equivalent factor loadings, the structural path coefficients between Europeans and Asians were invariant [$\chi^2(3) = 6.20, p > .05, \Delta CFI = -.001$]. Last, given equivalent factor

loadings, the structural path coefficients between European and European-Americans and other self-identified racial categories were invariant [$\chi^2(3) = 6.84, p > .05, \Delta CFI = -.001$].

Convergent and Discriminant Validity

To support the construct validity of our model (Hypothesis 2), we examined the relationship of the respondents' scores for the national culture maintenance and multicultural adaptation scales with the theoretically-related variable of national group commitment. In line with our expectations, national culture maintenance was significantly positively correlated with national group commitment, whereas no association was found between multicultural adaptation and national group commitment in any of the continent groups (see Table 5).

Discussion

In Study 2, confirmatory factor analysis supported a bidimensional acculturation model for locals (Hypothesis 1). Adequate model fit and respectable Cronbach's alpha coefficients for the whole sample and each subgroup supported the model's reliability. Moreover, multi-group confirmatory factor analysis detected a medium positive correlation between national culture maintenance and multicultural adaptation for the Western groups and a non-significant association between both constructs for the Asian group (i.e., orthogonal). These findings correspond to research on migrants' bidimensional acculturation model which has revealed that small to medium sized correlations between acculturation dimensions may occur across countries, which, however, does not question the independence of each dimension (Berry et al., 2006; Field, 2009).

Consistent with Hypothesis 2, a strong correlation was observed between national culture maintenance and commitment to one's national group, supporting the convergent validity of the Multi-VIA. Consistent with findings that assimilated multiculturalists do not feel a strong sense of belonging towards any one particular culture (Moore & Barker, 2012),

multicultural adaptation and national group commitment were not significantly associated, supporting the discriminant validity of the Multi-VIA.

In partial support of Hypothesis 3, national culture maintenance was positively associated with life satisfaction. Indeed, feelings of belonging to a social group (Tajfel & Turner, 1986) and engaging in self-expanding activities with this group (Kashdan et al., 2010) may enhance the subjective well-being of locals. Contrary to expectations, multicultural adaptation was not significantly associated with life satisfaction; it may be that some locals have positive attitudes towards contact-participation with diverse cultural groups, but do not engage in as many social activities or customs/practices in diverse cultures as they do in the mainstream culture. Therefore, they may have less life satisfaction-enhancing opportunities to engage in self-expanding activities in diverse cultures than in the mainstream culture.

Moreover, Study 2 found that locals who were higher in multicultural adaptation reported lower acculturative stress and greater intercultural sensitivity, supporting Hypotheses 4 and 5, respectively. While the negative relationship between multicultural adaptation and acculturative stress was only significant within the European sample, multicultural adaptation significantly predicted greater intercultural sensitivity across samples. These findings suggest that locals who endorse multicultural adaptation as an acculturation strategy may be more likely to 'fit in' to their culturally diverse society (cf., LaFromboise et al., 1993), enabling a new route towards promoting harmonious intergroup relations and social cohesion. These findings stand in line with the contact hypothesis (Berry & Kalin, 1979) – that is, the behavioural component of multicultural adaptation 'interacting with people from diverse cultures and adapting to their way of life' may be a particularly potent way for locals to reduce their acculturative stress and increase their intercultural sensitivity.

General Discussion

In these studies, we tested whether locals can simultaneously endorse national culture maintenance and multicultural adaptation in their own home country, supporting a bidimensional model of acculturation, or whether these strategies are incompatible, supporting a unidimensional model of acculturation. Studies 1 and 2 supported a bidimensional model, therefore providing empirical support for the notion that adapting towards multiculturalism does not necessarily lead to a culturally homogenized or one global multicultural culture (Fukuyama, 1992); rather, people can adapt towards diverse cultures whilst simultaneously maintaining their national culture. Thus, to decrease locals' feelings of cultural isolation and threat within increasingly-diverse communities (e.g., Plaut, Garnett, Buffardi, & Sanchez-Burks, 2009), politicians, educators, and the media should readdress multiculturalism and its influence on the mainstream society by considering the cultural adaptation of both immigrants and locals. Indeed, the findings from Study 2 revealed that locals' national culture maintenance was associated with greater subjective well-being, and their multicultural adaptation was associated with lower acculturative stress (at least for Europeans) and higher intercultural sensitivity. Both national culture maintenance and multicultural adaptation, then, were associated with positive outcomes.

While a bidimensional model fit the data across all three continent groups in Study 2, Americans and Europeans showed a positive, oblique association between national culture maintenance and multicultural adaptation, whereas the Asian sample displayed an orthogonal association. On the one hand, these findings are in line with correlational variations reported for migrants' heritage and mainstream culture orientations across cultures, indicating that a small to medium sized correlation between acculturation dimensions still supports the independence of each dimension (Berry et al., 2006).

On the other hand, these findings may reflect cultural differences in self-construals. For example, individualistic cultures within Europe and North America promote an independent self-construal, defined as a bounded trans-situational self (Markus & Kitayama, 1991). Thus, one's behaviour is organized in primary reference to personal desires, feelings, and abilities, and self-consistency across social contexts and time is valued (Ferenczi, Marshall, & Bejanyan, 2015). With regard to locals' acculturation towards cultural diversity, such an independent self may encourage Europeans and Americans to adapt the aspects of other cultures to create a consistent hybrid identity (e.g., Moore & Barker, 2012), resulting in an oblique association between national culture maintenance and multicultural adaptation. Conversely, an interdependent self-construal, common within many Asian cultures, refers to a more flexible understanding of the self that is shaped by the social context and relationships to specific others (Markus & Kitayama, 1991; Marshall, Chuong, & Aikawa, 2011). Interdependent selves are more motivated to conform their behaviour to situational and role demands (Torelli, 2006) and they are more accepting of inconsistency among self-elements than are independent selves (Pekerti & Thomas, 2015). As such, Asians may incorporate aspects of diverse cultures to create an inconsistent/context dependent hybrid identity, resulting in an orthogonal association between national culture maintenance and multicultural adaptation. Indeed, this may allow them to conform their behaviour to the situational demands of the given intercultural context (e.g., frame switching; Hong, Morris, Chiu, & Benet-Martinez).

Limitations and Future Directions

There were several limitations of the present studies. First, measuring acculturation is still a challenge for cross-cultural psychologists. For example, research has shown that immigrants' adaptation varies in strength across life spheres (e.g., public vs. private domains; Arends-Tóth & Van de Vijver, 2006; Navas et al., 2005; Navas, Rojas, García, & Pumares,

2007), which questions the applicability of Berry's (1997) relatively simplistic approach for explaining locals' acculturation. Moreover, we expected locals to experience changes due to an assumed increase in the vitality of non-dominant groups. To support this conceptualization, future research should measure locals' subjective group vitality in comparison to non-local groups' vitality within the larger society (Giles et al., 1977). Notably, data from our American participants was partially collected via MTurk using monetary incentives which may have resulted in less reliable responses in contrast to our other country groups (e.g., Rouse, 2015). Response reliability in future research using MTurk can, however, be improved by asking respondents whether or not they were attentive throughout the survey and given the option to have their data deleted. Additionally, having all participants respond to the items in English may have restricted our Chinese, Indian and German samples to bilingual locals only. Language competence may, however, affect associations between the Multi-VIA and potential outcome variables. This could be investigated in future research by administering the scale in English and the official languages of different countries to then test for different associations with the outcome variables.

Second, an orthogonal rather than oblique relation emerged between Asians' national culture maintenance and multicultural adaptation. Given that our Asian sample included Chinese and Indian participants, future studies should examine whether, for example, cultural differences in self-construals moderates the relationship between national culture maintenance and multicultural adaptation across different Asian nations. Moreover, we did not specify the degree of locals' exposure to culturally diverse groups within their own home country which may influence the level of national culture maintenance and multicultural adaptation endorsement. Yet, for the present study we were more interested in associations rather than in mean differences in national culture maintenance and multicultural adaptation. Thus, future research could expand on our findings by asking participants about their place of

residence as well as the quality and quantity of direct (face-to-face) contact they have with culturally diverse groups within their country as a potential predictor of national culture maintenance and multicultural adaptation.

Notably, high national cultural maintenance was associated with higher national group commitment, which could indicate locals' stronger attachment to their own cultural group. Relatedly, identification with one's national culture is positively associated with secure-preoccupied nation attachment (i.e., a desire to establish emotional and dependent links and to merge with one's nation; Ferenczi & Marshall, 2013). Future research could investigate whether nation attachment mediates the association of national culture maintenance with national group commitment. Moreover, Guimond, De la Sablonnière, and Nugier (2014) found that locals' personal attitudes toward multiculturalism are shaped by what locals believe is the shared ideology with other locals (i.e., multicultural norm), and thus should be considered as a potential moderator of associations between national culture maintenance and multicultural adaptation with adjustment outcomes. This could be combined with testing whether Berry's (1997) four-folded paradigm of acculturation strategies (e.g., integration) can be replicated with locals' national culture maintenance and multicultural adaptation (e.g., interaction effects). Finally, future research may also consider measuring alternative indices of psychological adjustment such as flourishing (Diener, Wirtz, Tov, Kim-Prieto, & Choi, 2010), and use longitudinal and experimental approaches to establish the causality of our proposed predictive model.

Overall, this research draws attention not only to migrants' acculturation, but also to locals' acculturation. Unlike globalization-based acculturation research, we propose addressing multiculturalism in terms of cultural/ethnic pluralism within the own country rather than Westernization (cf., Gillespie et al., 2010). By employing the Multi-VIA, future research could go beyond current work on migrants' acculturation (e.g., Berry, 1997), locals'

acculturation expectations of migrants (e.g., Bourhis et al., 2010), or the effects of intergroup ideologies on locals' xenophobic tendencies (Guimond et al., 2013). This may help to diminish locals' perceived threat, and boost their sense of 'fitting in' to today's multicultural societies. Ultimately, this may allow societies to accommodate diversity while ensuring social cohesion.

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Table 1

Distribution and Correlation of Continuous Variables

| | | <i>M</i> | <i>SD</i> | 1 | 2 | 3 | 4 |
|-----------|---------------------------------|----------|-----------|--------------|---------------|---------------|---|
| Multi-VIA | 1. National Culture Maintenance | 4.09 | .62 | 1 | | | |
| | 2. Multicultural Adaptation | 3.72 | .60 | .37** | 1 | | |
| ISI | 3. Ethnocentrism | 2.24 | .65 | -.06 | -.30** | 1 | |
| | 4. Ethnorelativism | 3.66 | .68 | .22* | .68** | -.28** | 1 |

Notes. In bold: * $p < .01$. ** $p < .001$.

Table 2

Factor loadings for the Multi-VIA

| Components | NCM | MA |
|---|------------|------------|
| 1 I often participate in my American cultural traditions. | .66 | -.02 |
| 2 I would be willing to marry a person from my American culture. | .75 | -.01 |
| 3 I enjoy social activities with people from my American culture. | .72 | .09 |
| 4 I am comfortable working with people of my American culture. | .76 | .05 |
| 5 I enjoy entertainment (e.g. movies, music) from my American culture. | .73 | .04 |
| 6 I often behave in ways that are typical of my American culture. | .74 | -.16 |
| 7 It is important for me to maintain or develop the practices of my American culture. | .68 | -.15 |
| 8 I believe in the values of my American culture. | .77 | -.17 |
| 9 I enjoy the jokes and humour of my American culture. | .80 | -.05 |
| 10 I am interested in having friends from my American culture. | .73 | .11 |
| 1 I often participate in diverse cultural traditions. | -.21 | .71 |
| 2 I would be willing to marry a person from a diverse culture. | .07 | .72 |
| 3 I enjoy social activities with people from diverse cultures. | .11 | .70 |
| 4 I am comfortable working with people from diverse cultures. | .37 | .50 |
| 5 I enjoy entertainment (e.g. movies, music) from diverse cultures. | -.05 | .50 |
| 6 I often behave in ways that are typical of diverse cultures. | -.29 | .66 |
| 7 It is important for me to maintain or develop the practices of diverse cultures. | -.17 | .72 |
| 8 I believe in diverse cultural values. | .05 | .60 |
| 9 I enjoy jokes and humour of diverse cultures. | .13 | .51 |
| 10 I am interested in having friends from diverse cultures. | .30 | .55 |
| EIGENVALUES | 7.53 | 3.21 |
| % OF VARIANCE | 35.30 | 13.34 |

Notes. Factor loadings > .45 in boldface. NCM: national culture maintenance. MA: multicultural adaptation.

Table 3

Means, Standard Deviations and Alpha Coefficients for Continuous Variables

| Variables | TOTAL | | | United Kingdom | | | Germany | | | United States of America | | | China | | | India | | | F-ratio |
|-----------|-----------|-------|----------|----------------|-------|----------|-----------|------|----------|--------------------------|-------|----------|-----------|------|----------|-----------|------|----------|----------|
| | (N = 619) | | | (N = 103) | | | (N = 111) | | | (N = 200) | | | (N = 101) | | | (N = 104) | | | (4, 614) |
| | M | SD | α | M | SD | α | M | SD | α | M | SD | α | M | SD | α | M | SD | α | |
| Age | 28.93 | 10.09 | - | 26.72 | 10.67 | - | 27.82 | 8.07 | - | 33.47 | 12.23 | - | 23.93 | 3.19 | - | 28.44 | 7.65 | - | 20.17** |
| NCM | 3.98 | .57 | .86 | 4.03 | .56 | .86 | 3.88 | .52 | .81 | 4.04 | .60 | .90 | 3.82 | .58 | .87 | 4.10 | .53 | .83 | 5.10** |
| MA | 3.71 | .58 | .85 | 3.73 | .55 | .83 | 3.89 | .40 | .73 | 3.76 | .65 | .89 | 3.49 | .50 | .80 | 3.60 | .65 | .87 | 8.37** |
| NC | 3.32 | .86 | .78 | 3.31 | .95 | .85 | 2.98 | .87 | .81 | 3.57 | .93 | .76 | 3.49 | .89 | .87 | 3.64 | .94 | .88 | 9.71** |
| SWL | 4.44 | 1.40 | .90 | 4.31 | 1.31 | .90 | 4.96 | 1.29 | .88 | 4.25 | 1.57 | .94 | 3.94 | 1.05 | .79 | 4.84 | 1.29 | .88 | 10.95** |
| IS | 3.79 | .48 | .89 | 3.85 | .38 | .85 | 3.91 | .39 | .87 | 3.88 | .56 | .93 | 3.59 | .40 | .86 | .65 | .46 | .85 | 11.02** |
| AS | 2.20 | .76 | .89 | 2.00 | .72 | .87 | 2.02 | .55 | .82 | 1.98 | .76 | .88 | 2.59 | .56 | .82 | 2.66 | .82 | .90 | 27.92** |

Notes. ** $p < .001$. NCM: national culture maintenance. MA: multicultural adaptation. NC: national commitment. SWL: Satisfaction with life.

IS: intercultural sensitivity. AS: acculturative stress.

Table 4

Distribution of Categorical Independent Variables between the Subsamples

| Variables | | TOTAL N=619 | | UK N=103 | | GE N=111 | | US N=200 | | CHN N=101 | | IND N=104 | | Chi-Square |
|--------------------|----------------------------|----------------|------|-------------|------|-------------|------|----------|------|--------------|------|--------------|------|--|
| | | n | % | n | % | n | % | n | % | n | % | n | % | |
| GENDER: | Male | 253 | 40.9 | 43 | 41.7 | 31 | 27.9 | 86 | 43 | 43 | 42.6 | 50 | 48.1 | $\chi^2 = 10.46$, df = 4, $p < .05^*$ |
| | Female | 366 | 51.9 | 60 | 58.3 | 80 | 72.1 | 114 | 57 | 58 | 57.4 | 54 | 51.9 | |
| RELIGION: | Christianity | 239 | 38.6 | 35 | 34 | 76 | 68.5 | 114 | 57 | 8 | 7.9 | 6 | 5.8 | $\chi^2 = 697.79$, df = 16, $p < .001^{**}$ |
| | Hinduism | 84 | 13.6 | 3 | 2.9 | 0 | 0 | 1 | .5 | 0 | 0 | 80 | 76.9 | |
| | Taoism/Confucianism | 34 | 5.5 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 33.7 | 0 | 0 | |
| | Atheist/Agnostic | 224 | 36.2 | 58 | 56.3 | 34 | 30.6 | 74 | 37 | 52 | 51.5 | 6 | 5.8 | |
| | Other | 38 | 6.1 | 7 | 6.8 | 1 | .9 | 10 | 5.5 | 7 | 6.9 | 12 | 11.5 | |
| SELF-IDENTIFIED | European/European-American | 339 | 54.8 | 85 | 82.5 | 91 | 82 | 160 | 80 | 2 | 2 | 1 | 1 | $\chi^2 = 899.85$, df = 12, |
| RACIAL CATEGORIES: | South Asian | 102 | 16.5 | 7 | 6.8 | 0 | 0 | 3 | 1.5 | 4 | 4 | 88 | 84.6 | |
| | East Asian | 105 | 17 | 0 | 0 | 0 | 0 | 6 | 3 | 90 | 89.1 | 9 | 8.7 | $p < .001^{**}$ |
| | Other | 73 | 11.8 | 11 | 10.7 | 20 | 18 | 31 | 15.5 | 5 | 5 | 6 | 5.8 | |
| OCCUPATION: | Student | 246 | 39.7 | 55 | 53.4 | 58 | 52.3 | 35 | 17.5 | 74 | 73.3 | 24 | 23.1 | $\chi^2 = 128.48$, df = 8, $p < .001^*$ |
| | Employed | 312 | 50.4 | 42 | 40.8 | 52 | 46.8 | 129 | 64.5 | 24 | 23.8 | 65 | 62.5 | |
| | Unemployed/Retired | 61 | 9.9 | 6 | 5.8 | 1 | .9 | 36 | 18 | 3 | 3 | 15 | 14.4 | |
| EDUCATION: | No qualification | 13 | 2.1 | 1 | 1 | 1 | .9 | 8 | 4.0 | 2 | 2 | 1 | 1 | $\chi^2 = 73.51$, df = 8, $p < .001^{**}$ |
| | A-levels | 176 | 28.4 | 57 | 55.3 | 35 | 31.5 | 61 | 30.5 | 11 | 10.9 | 12 | 11.5 | |
| | High qualification | 430 | 69.5 | 45 | 43.7 | 75 | 67.6 | 131 | 65.5 | 88 | 87.5 | 91 | 87.5 | |

Notes. $*p < .05$. $**p < .001$. UK: United Kingdom. GE: Germany. US: United States of America. CHN: China. IND: India.

Table 5
Correlation Matrix of Independent and Control Variables

| | | 1 | 2 | 3 | 4 | 5 | 6 |
|---|----------------|--------------|--------------|--------------|---------------|--------------|---|
| 1. NCM (Multi-VIA) | Total | 1 | | | | | |
| | North America | 1 | | | | | |
| | Europe | 1 | | | | | |
| | United Kingdom | 1 | | | | | |
| | Germany | 1 | | | | | |
| | Asia | 1 | | | | | |
| | China | 1 | | | | | |
| | India | 1 | | | | | |
| 2. MA (Multi-VIA) | Total | .20** | 1 | | | | |
| | North America | .36** | 1 | | | | |
| | Europe | .25** | 1 | | | | |
| | United Kingdom | .33** | 1 | | | | |
| | Germany | .23* | 1 | | | | |
| | Asia | -.02 | 1 | | | | |
| | China | .01 | 1 | | | | |
| | India | -.20 | 1 | | | | |
| 3. National Commitment (MEIM-R) | Total | .42** | .00 | 1 | | | |
| | North America | .45** | .12 | 1 | | | |
| | Europe | .42** | .04 | 1 | | | |
| | United Kingdom | .47** | .07 | 1 | | | |
| | Germany | .34** | -.02 | 1 | | | |
| | Asia | .39** | -.08 | 1 | | | |
| | China | .37** | .04 | 1 | | | |
| | India | .39** | -.18 | 1 | | | |
| 4. Intercultural Sensitivity (ISS) | Total | .14* | .59** | .05 | 1 | | |
| | North America | .25** | .67** | .09 | 1 | | |
| | Europe | .04 | .55** | .05 | 1 | | |
| | United Kingdom | .08 | .51** | .07 | 1 | | |
| | Germany | .03 | .80** | .07 | 1 | | |
| | Asia | .07 | .43** | .11 | 1 | | |
| | China | .14 | .45** | .29* | 1 | | |
| | India | -.02 | .42** | -.04 | 1 | | |
| 5. Acculturative Stress (RAS) | Total | .01 | -.11* | .15** | .67** | 1 | |
| | North America | -.04 | -.00 | .12 | -.23* | 1 | |
| | Europe | .11 | .15 | .22* | -.24* | 1 | |
| | United Kingdom | .13 | -.13 | .35** | -.19 | 1 | |
| | Germany | .07 | -.19 | .59 | -.30* | 1 | |
| | Asia | .00 | .02 | .05 | -.46** | 1 | |
| | China | -.13 | -.18 | -.18 | -.42** | 1 | |
| | India | .07 | .14 | .19 | -.50** | 1 | |
| 6. Satisfaction with Life Scale (SWLS) | Total | .18** | .12* | .10 | -.01 | -.01 | 1 |
| | North America | .20* | .13 | .14 | -.01 | -.01 | 1 |
| | Europe | .15 | .16 | .08 | -.08 | -.08 | 1 |
| | United Kingdom | .11 | .03 | .20 | .11 | .08 | 1 |
| | Germany | .28** | .25* | .06 | .22 | -.30* | 1 |
| | Asia | .22* | .07 | .16 | .07 | .08 | 1 |
| | China | .08 | -.12 | .04 | -.05 | -.07 | 1 |
| | India | .19 | .13 | .22 | .06 | .13 | 1 |

Notes. In bold: $p < .05$. * $p < .01$. *** $p < .001$.

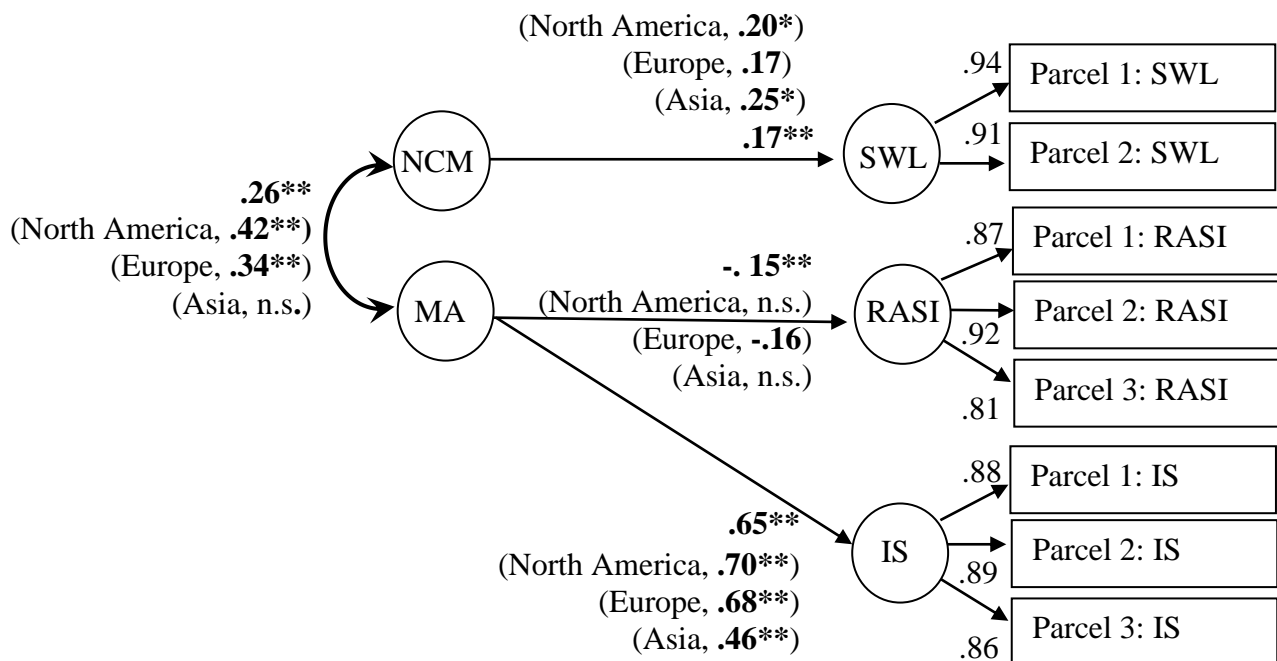
Table 6

Standardized and Unstandardized Coefficients for the Total and Subsamples

| Observed variable | Latent construct | Total | | | | North America | | | | Europe | | | | Asia | | | | European/European-American | | | | Other than European/European-American | | | |
|-------------------|------------------|-----------|------|-----|-----|---------------|------|-----|-----|-----------|------|-----|-----|-----------|------|-----|-----|----------------------------|------|-----|-----|---------------------------------------|------|-----|-----|
| | | (N = 619) | | | | (N = 200) | | | | (N = 214) | | | | (N = 205) | | | | (N = 339) | | | | (N = 280) | | | |
| | | β | B | SE | p | β | B | SE | p | β | B | SE | p | β | B | SE | p | β | B | SE | p | β | B | SE | p |
| Parcel 1 | NCM | .75 | 1.00 | | | .82 | 1.00 | | | .67 | 1.00 | | | .72 | 1.00 | | | .79 | 1.00 | | | .70 | 1.00 | | |
| Parcel 2 | NCM | .75 | .87 | .05 | *** | .84 | .88 | .06 | *** | .81 | 1.12 | .12 | *** | .60 | .71 | .09 | *** | .80 | .91 | .06 | *** | .68 | .83 | .08 | *** |
| Parcel 3 | NCM | .73 | .99 | .06 | *** | .82 | .90 | .07 | *** | .62 | 1.06 | .14 | *** | .77 | 1.07 | .11 | *** | .69 | .88 | .07 | *** | .77 | 1.13 | .10 | *** |
| Parcel 4 | NCM | .64 | 1.04 | .07 | *** | .71 | 1.05 | .10 | *** | .67 | 1.26 | .15 | *** | .73 | 1.08 | .12 | *** | .71 | 1.12 | .09 | *** | .68 | 1.10 | .11 | *** |
| Parcel 5 | NCM | .78 | .97 | .05 | *** | .84 | .82 | .06 | *** | .74 | 1.12 | .12 | *** | .79 | 1.05 | .10 | *** | .74 | .81 | .06 | *** | .83 | 1.16 | .10 | *** |
| Parcel 6 | MA | .74 | 1.00 | | | .82 | 1.00 | | | .66 | 1.00 | | | .74 | 1.00 | | | .75 | 1.00 | | | .72 | 1.00 | | |
| Parcel 7 | MA | .70 | .88 | .05 | *** | .71 | .74 | .07 | *** | .63 | .78 | .10 | *** | .72 | 1.03 | .11 | *** | .70 | .78 | .06 | *** | .75 | 1.06 | .09 | *** |
| Parcel 8 | MA | .80 | .98 | .05 | *** | .85 | .95 | .07 | *** | .73 | .92 | .11 | *** | .78 | 1.01 | .10 | *** | .81 | .93 | .06 | *** | .78 | 1.05 | .09 | *** |
| Parcel 9 | MA | .74 | 1.03 | .06 | *** | .79 | .89 | .07 | *** | .62 | .81 | .11 | *** | .77 | 1.22 | .12 | *** | .74 | .91 | .07 | *** | .77 | 1.22 | .10 | *** |
| Parcel 10 | MA | .78 | 1.04 | .06 | *** | .81 | .97 | .07 | *** | .76 | 1.05 | .12 | *** | .76 | 1.13 | .11 | *** | .77 | .97 | .07 | *** | .76 | 1.13 | .10 | *** |

Notes. *** $p < .0001$. NCM: national culture maintenance. MA: multicultural adaptation.

Figure 1

Standardized Structural Path Coefficients and Measurement Weights

Notes. Latent variables include: national culture maintenance (NCM), multicultural adaptation (MA), satisfaction with life (SWL), acculturative stress (AS), and intercultural sensitivity (IS). In bold: $p < .05$. * $p < .01$. ** $p < .001$.